TRAINING AND TESTING OBJECTIVES FOR RADAR OPERATOR TRAINING

I . Prior to being assigned to and allowed to perform RADAR traffic operations, each officer should be required to complete a sixteen (16) hour course of instruction covering the following learning objectives. Each student should satisfactorily complete each learning objective.

II . NON-PERFORMANCE BASED LEARNING OBJECTIVES:

A . The student will identify what the acronym RADAR stands for.

B . The student will identify the characteristics of radio waves transmitted by a police RADAR device, to minimally include:

1 . The single speed

2 . The wave length

3 . The frequency

C . The student will identify situations when relative motion will occur, to minimally include:

1 . If the object reflecting the energy stands still and the radar transmission source moves.

2 . If the radar transmission source stands still and the object reflecting the energy moves.

3 . If both the radar transmission source and the object reflecting the energy are moving.

D . The student will define how the Doppler principle must be applied to relate to police traffic Radar both stationary and moving.

E . The student will **define** the Doppler Shift.

F . The student will identify how the Doppler Principle is applied to moving RADAR when vehicles are approaching, moving away or traveling in the same direction as the unit.

G . The student will list factors that affect a RADAR unit's "decision" process to minimally include:

1 . Reflective capability

2 . Position

3 . Speed

H . The student will list the elements involved in completing a RADAR tracking history, to minimally include:

1 . Visual estimation of target speed

2 . Audio tracking

3 . Target speed display

4 . Patrol speed verification (moving radar only)

I . The student will state what is affected by an adjustment to the RADAR instrument's sensitivity.

J . The student will list the factors affecting RADAR operation (stationary and moving), to minimally include:

1 . Interference

2 . Multi-band Beam Cancellation Effect (RADAR blind spots)

3 . Scanning Effect

4 . Panning Effect

5 . Target speed discrimination test (same direction moving)

6 . Patrol Speed Shadow Effect

7 . Batching Effect

8 . Cosine Effect

9 . Poorly aligned antenna

10 . Wet conditions

11 . Turn-on Power Surge Effect (if applicable)

12 . Mirror Switching Effect (if applicable)

K . The student will identify the "A B C" of RADAR assembly.

L . The student will list the procedure for testing the radar unit

M . The student will list the following that should be maintained in the preparation of court testimony, to minimally include:

1 . Site information

2 . Device information

3 . Enforcement Action

4 . Test procedures and information

N . The student will identify the instrument components, functions of specific types of RADAR devices available for their use, and operating procedures.

O . The student will explain the significance of the following cases:

1 . State vs. Dantonio

2 . Honeycutt vs. Commonwealth

3 . State vs. Hanson

4 . State vs. Tomanelli

P . The student will identify the elements of a speed offense to include:

1 . Driver identification

2 . Location

3 . Speed

4 . Conditions

5 . Tracking history

6 . Vehicle identification

PERFORMANCE BASED LEARNING OBJECTIVES:

Q . *The student will demonstrate ability to set up, test, and operate their RADAR device.

R . *The student will demonstrate the ability to make visual speed estimations within + or - 5 MPH in the stationary and moving modes.

* DENOTES THOSE OBJECTIVES WHICH REQUIRE HANDS ON PERFORMANCE!